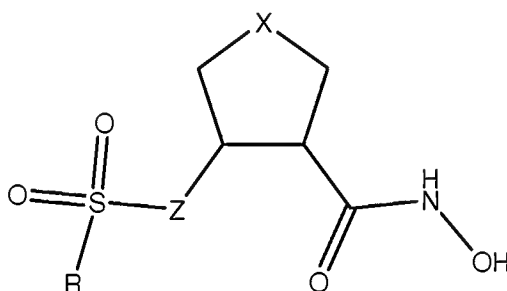


## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application. In amendments to the claims, additions are represented by underlining and deletions are represented by ~~striketrough~~ or, in cases of five characters or fewer, by [[double brackets]].

## LISTING OF CLAIMS

1. (Currently Amended) A compound having the following formula:

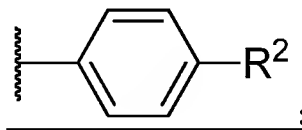


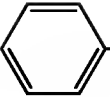
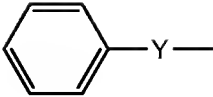
wherein

X is ~~(CH<sub>2</sub>)<sub>n</sub>O, (CH<sub>2</sub>)<sub>n</sub>S, (CH<sub>2</sub>)<sub>n</sub>NR<sup>1</sup>~~, (CH<sub>2</sub>)<sub>n</sub>(CH<sub>2</sub>), or CH=CH, wherein n = 0, 1, or 2;

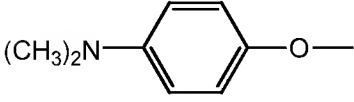
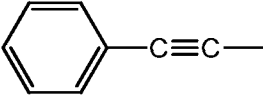
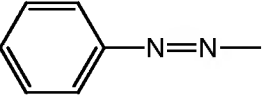
~~R and R<sup>1</sup> are, independently, a substituted or unsubstituted alkyl, alkenyl, alkynyl, aryl, heteroaryl group, cycloalkyl, heterocycloalkyl, cycloalkenyl, or heterocycloalkenyl; and~~

R is a substituted aryl group of the following formula:

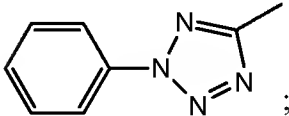
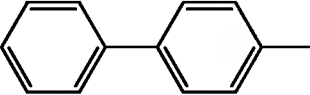
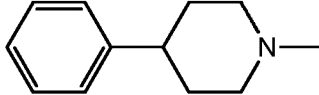


$R^2$  is Br; methoxy;  ; , wherein Y = O, S, or CH<sub>2</sub>;

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 ;  ;  ;

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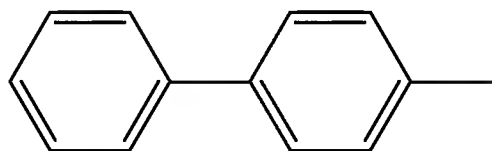
 ;  ; or  ; **and**

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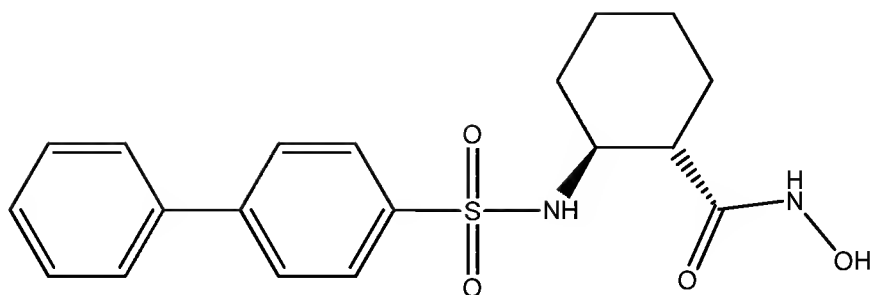
Z is NH or CH<sub>2</sub>;

or a pharmaceutically acceptable salt thereof.

2. (Original) The compound of claim 1, wherein Z is NH.
3. (Original) The compound of claim 1, wherein Z is CH<sub>2</sub>.
- 4-5. (Canceled)
6. (Currently Amended) The compound of ~~claim 2~~ claim 1, wherein R is:

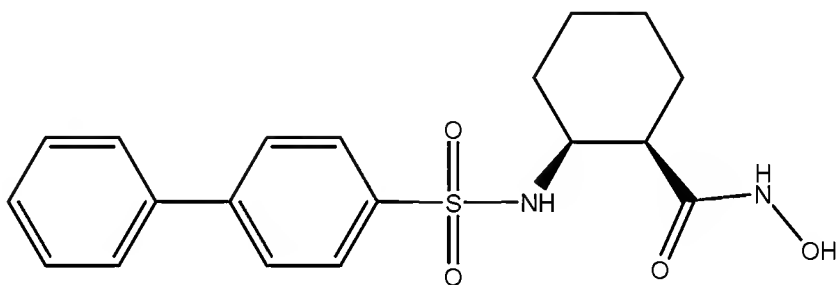


7. (Currently Amended) The compound of ~~claim 2~~ claim 1, wherein X is (CH<sub>2</sub>)<sub>n</sub>(CH<sub>2</sub>) and n = 1.
8. (Currently Amended) The compound of ~~claim 2~~ claim 1, wherein X is CH=CH.
9. (Original) The compound of claim 1, wherein the compound is



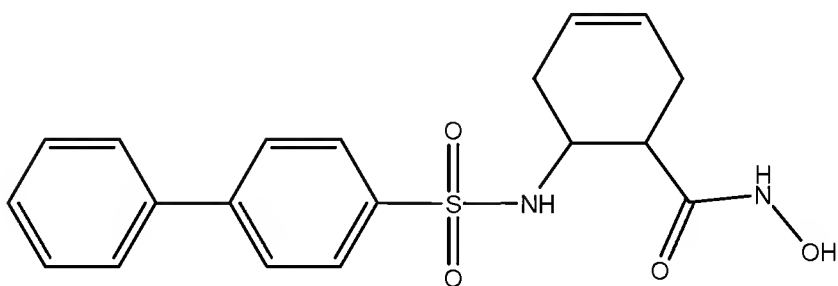
or a pharmaceutically acceptable salt thereof.

10. (Original) The compound of claim 1, wherein the compound is



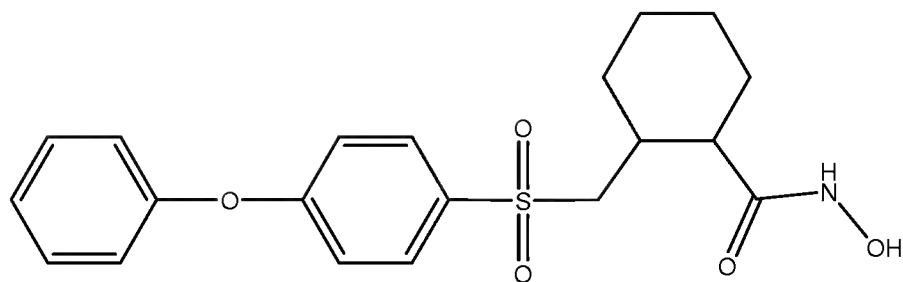
or a pharmaceutically acceptable salt thereof.

11. (Original) The compound of claim 1, wherein the compound is



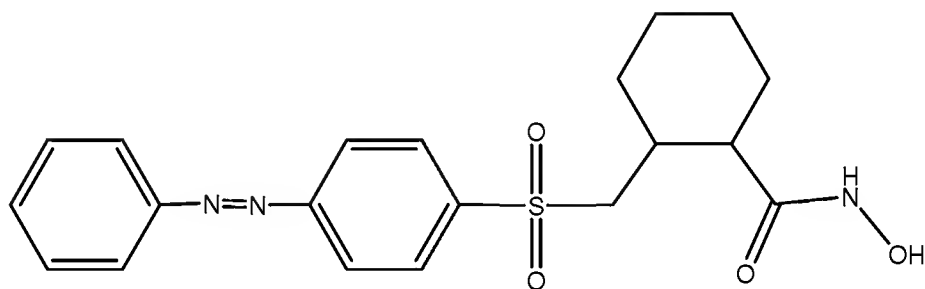
or a pharmaceutically acceptable salt thereof.

12. (Original) The compound of claim 1, wherein the compound is



or a pharmaceutically acceptable salt thereof.

13. (Original) The compound of claim 1, wherein the compound is



or a pharmaceutically acceptable salt thereof.

14. (Withdrawn) The compound of claim 1, wherein the compound is a selective modulator of a MMP.

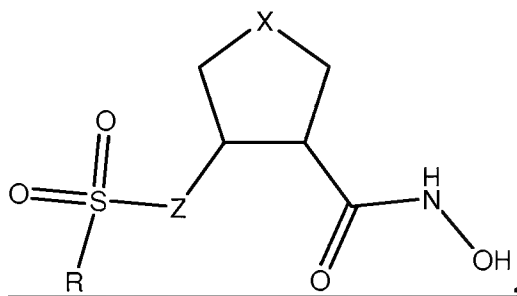
15. (Withdrawn) The compound of claim 1, wherein the compound is a modulator of human tumor metastasis.

16. (Withdrawn) The compound of claim 1, wherein the compound is a modulator of MMP-2, MMP-9, or a mixture thereof, *in vitro*.

17. (Withdrawn) The compound of claim 1, wherein the compound is a selective inhibitor of a MMP.

18. (Withdrawn) The compound of claim 1, wherein the compound is an inhibitor of human tumor metastasis.

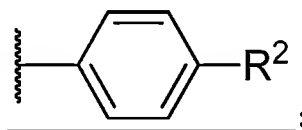
19. (Withdrawn) The compound of claim 1, wherein the compound is an inhibitor of MMP-2, MMP-9, or a mixture thereof, *in vitro*.
20. (Currently Amended) A pharmaceutical composition, comprising ~~the compound of claim 1~~  
**a compound having the following formula:**


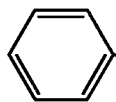


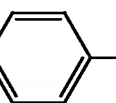
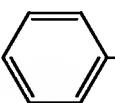
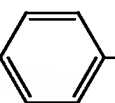
**wherein**

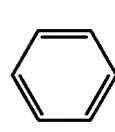
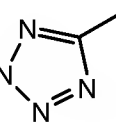
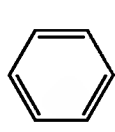
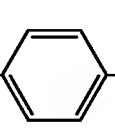
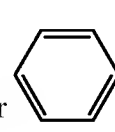
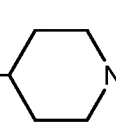
**X is (CH<sub>2</sub>)<sub>n</sub>(CH<sub>2</sub>) or CH=CH, wherein n = 0, 1, or 2;**

**R is a substituted aryl group of the following formula:**



**R<sup>2</sup> is Br; methoxy; ; -Y-, wherein Y = O, S, or CH<sub>2</sub>;**

**(CH<sub>3</sub>)<sub>2</sub>N--O-; -C≡C-; -N=N-;**

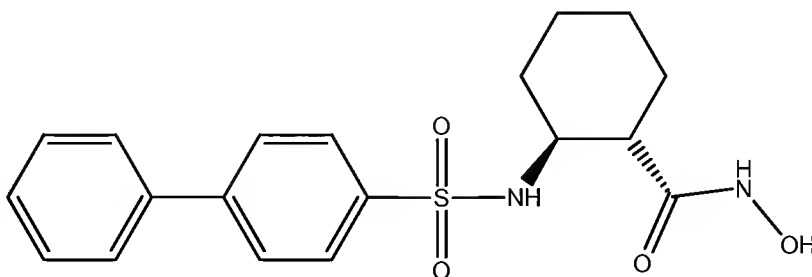
**-N=N-; --; or --N-; and**

**Z is NH or CH<sub>2</sub>;**

or a pharmaceutically acceptable salt thereof,

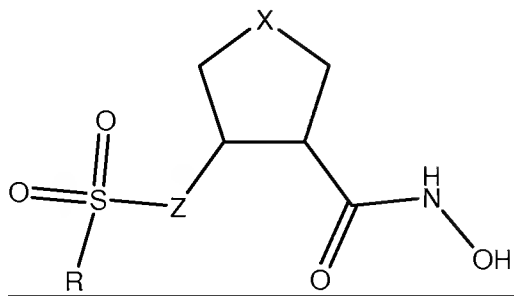
and a pharmaceutical carrier.

21. (Currently Amended) The composition of claim 20, wherein the compound is ~~the compound~~  
**of claims 9 or 10**



or a pharmaceutically acceptable salt thereof.

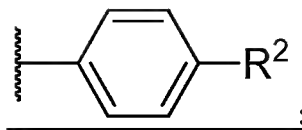
22. (Withdrawn) The composition of claim 20, further comprising an anti-cancer agent.
23. (Withdrawn – Currently Amended) A method for using ~~the compound of claim 1~~ **a compound having the following formula:**



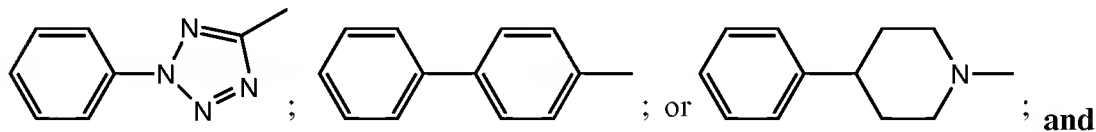
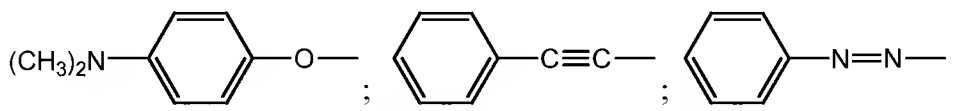
**wherein**

**X is (CH<sub>2</sub>)<sub>n</sub>(CH<sub>2</sub>) or CH=CH, wherein n = 0, 1, or 2;**

**R is a substituted aryl group of the following formula:**



$R^2$  is Br; methoxy; ; , wherein Y = O, S, or CH<sub>2</sub>;



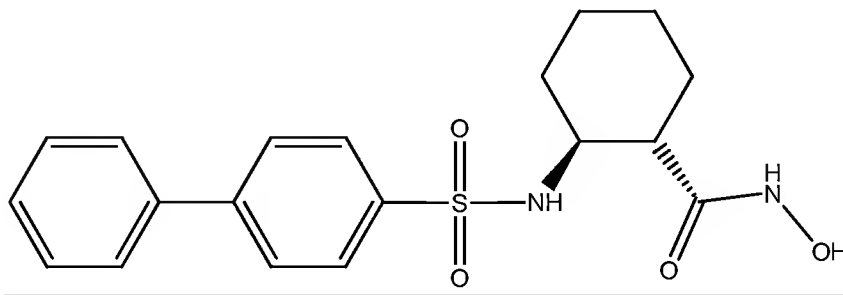
Z is NH or CH<sub>2</sub>;

or a pharmaceutically acceptable salt thereof,

comprising administering an amount effective for modulation of a MMP of ~~at least one the compound of claim 1~~ the compound to an environment comprising the MMP.

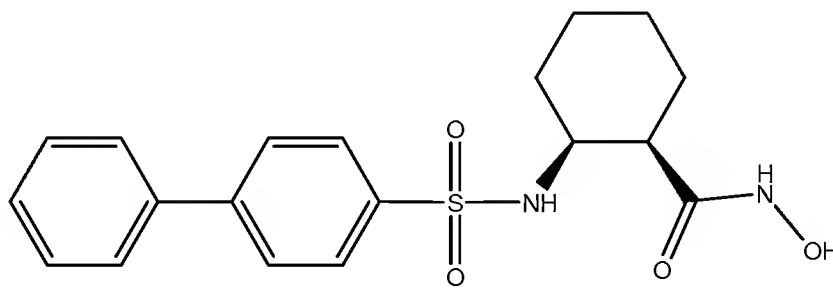
24. (Withdrawn) The method of claim 23, wherein the MMP is MMP-2, MMP-9, or a mixture thereof.

25. (Withdrawn – Currently Amended) The method of claim 23, ~~wherein the at least one compound is the compound of claim 9~~ wherein the compound is



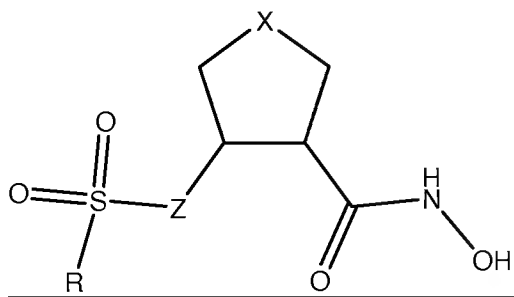
or a pharmaceutically acceptable salt thereof.

26. (Withdrawn) The method of claim 23, ~~wherein the at least one compound is the compound of claim 10~~ wherein the compound is



or a pharmaceutically acceptable salt thereof.

27. (Withdrawn) The method of claim 23, wherein the amount effective for modulation is equivalent to an amount effective for inhibition.
28. (Withdrawn) The method of claim 27, wherein inhibition is characterized by an IC<sub>50</sub> less than about 3000nM.
29. (Withdrawn) The method of claim 27, wherein inhibition is characterized by an IC<sub>50</sub> less than about 200nM.
30. (Withdrawn – Currently Amended) A method for using ~~the compound of claim 1~~ a compound having the following formula:

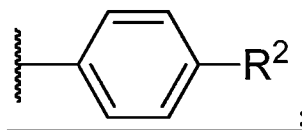




wherein

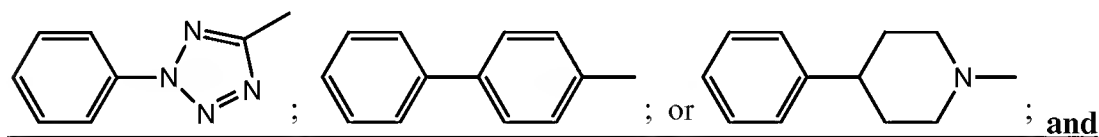
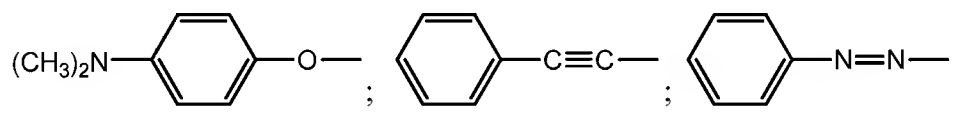


**X is (CH<sub>2</sub>)<sub>n</sub>(CH<sub>2</sub>) or CH=CH, wherein n = 0, 1, or 2;**

**R is a substituted aryl group of the following formula:**



$R^2$  is Br; methoxy; ; , wherein Y = O, S, or CH<sub>2</sub>;



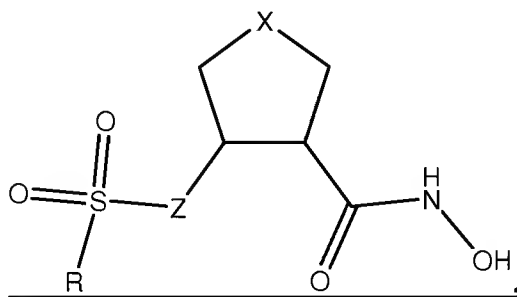
Z is NH or CH<sub>2</sub>;

**or a pharmaceutically acceptable salt thereof**, comprising:

administering an amount effective for modulation of tumor metastasis of ~~at least one compound of claim 1~~ the compound to a cell.

31. (Withdrawn) The method of claim 30, wherein the amount effective for modulation is equivalent to the amount effective for inhibition.
32. (Withdrawn) The method of claim 30, wherein the cell is a HT-1080 cell.
33. (Withdrawn) The method of claim 30, wherein inhibition is measured by arrest of tumor invasion.

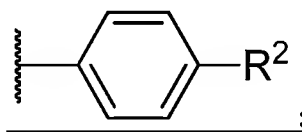
34. (Withdrawn) The method of claim 30, wherein inhibition is measured by arrest of tumor angiogenesis.
35. (Withdrawn – Currently Amended) A method for treating a subject with cancer comprising administering an effective amount of ~~the compound of claim 1~~ a compound having the following formula:

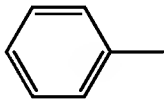
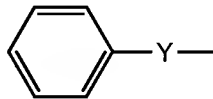


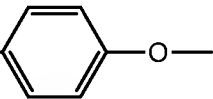
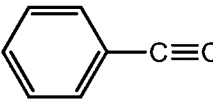
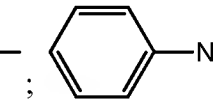
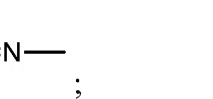
wherein

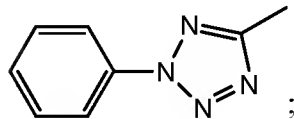
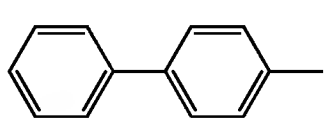
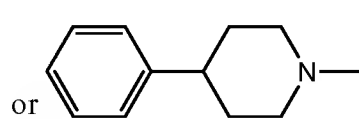
X is (CH<sub>2</sub>)<sub>n</sub>(CH<sub>2</sub>) or CH=CH, wherein n = 0, 1, or 2;

R is a substituted aryl group of the following formula:



R<sup>2</sup> is Br; methoxy; ; , wherein Y = O, S, or CH<sub>2</sub>;

(CH<sub>3</sub>)<sub>2</sub>N--O--C≡C--N=N-;

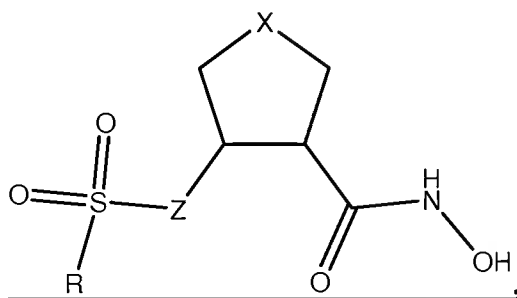
; ; or ; **and**

Z is NH or CH<sub>2</sub>;

**or a pharmaceutically acceptable salt thereof,**

to a subject in need of the treatment.

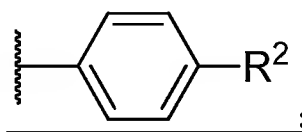
36. (Withdrawn) The method of claim 35, wherein the cancer is a carcinoma, melanoma, leukemia, or adenoma.
37. (Withdrawn – Currently Amended) The method of claim 35, wherein the compound ~~of claim 1~~ is part of an anti-cancer cocktail.
38. (Withdrawn) The method of claim 35, wherein the subject is a human.
39. (Withdrawn – Currently Amended) A method for preventing cancer in a subject comprising administering to a subject an effective amount of ~~the compound of claim 1 to a subject a~~ **compound having the following formula:**

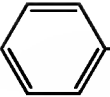
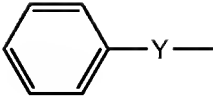


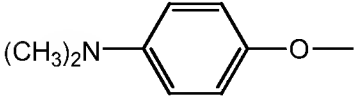
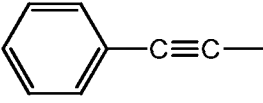
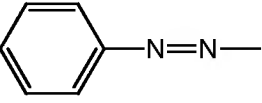
wherein

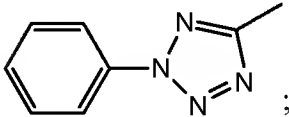
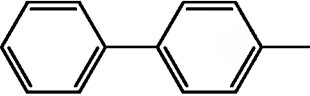
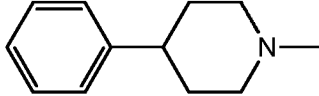
**X is (CH<sub>2</sub>)<sub>n</sub>(CH<sub>2</sub>) or CH=CH, wherein n = 0, 1, or 2;**

**R is a substituted aryl group of the following formula:**



$R^2$  is Br; methoxy; ; , wherein Y = O, S, or CH<sub>2</sub>;

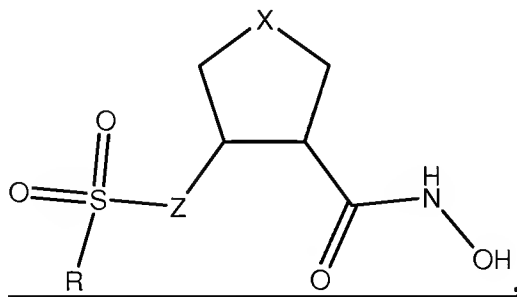
; ; ;

; ; or ; **and**

Z is NH or CH<sub>2</sub>;

or a pharmaceutically acceptable salt thereof.

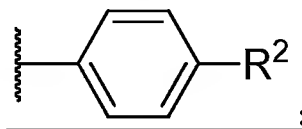
40. (Withdrawn – Currently Amended) A method for treating a subject with arthritis comprising administering an effective amount of ~~the compound of claim 1~~ a compound having the following formula:

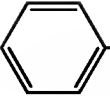
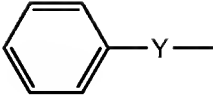


wherein

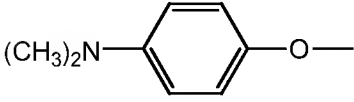
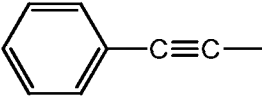
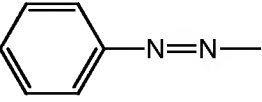
X is (CH<sub>2</sub>)<sub>n</sub>(CH<sub>2</sub>) or CH=CH, wherein n = 0, 1, or 2;

R is a substituted aryl group of the following formula:

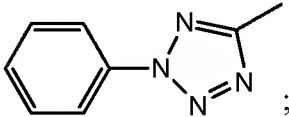
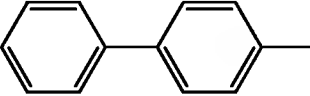
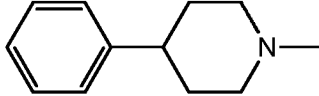


$R^2$  is Br; methoxy; ; , wherein Y = O, S, or CH<sub>2</sub>;

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; ; ;

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; ; or ; **and**

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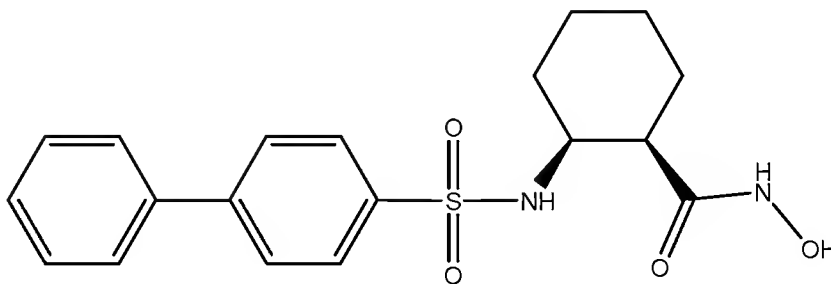
**Z is NH or CH<sub>2</sub>;**

**or a pharmaceutically acceptable salt thereof,**

to a subject in need of the treatment.

41-45. (Canceled)

46. (New) The composition of claim 20, wherein the compound is



or a pharmaceutically acceptable salt thereof.